

**CULEX (CULEX) SCIMITAR, A NEW SPECIES OF MOSQUITO
FROM THE BAHAMA ISLANDS¹**
(DIPTERA, CULICIDAE)

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The northernmost islands of the Bahamas, British West Indies, lie some one hundred miles off the southeast coast of Florida on the northern limits of the Neotropical realm. On two of these, Andros and Hog Island, a new species of *Culex*, here proposed as *scimitar*, has recently been observed. The terminalia of three male specimens of this form taken by light trap on Andros Island were sent by the authors to Dr. Alan Stone of the Entomology Research Division, U. S. Department of Agriculture, who verified its undescribed status. According to Dr. Stone (personal communication) a series of this species from New Providence Island, Bahamas, was determined by Dyar along with *Culex nigripalpus* Theobald as *Culex similis* Theobald. Dyar later considered *similis* to be a synonym of *nigripalpus*, probably correctly, and it does not seem likely that this or any of the other supposed synonyms of *nigripalpus* can be applied to the form we describe here. Dr. Stone also has in his possession a single male of the species from Havana, Cuba.

Andros Island, the Bahamas' largest, extends southward from latitude 25 North. Hog Island, near the same latitude some forty miles to the east of Andros, is a small strip of land situated less than a mile across a salt-water channel from the city of Nassau on the northeast coast of New Providence Island. In the present study, a total of fifty males and seventy females from these two localities has been examined. Light traps on Andros, operated by Seabrook and F. W. Harden during the summer of 1958, captured seven males, while larvae taken by them from Hog Island, and reared to adults by Branch in October of 1958, accounted for an additional forty-three males and the seventy females. These larvae were collected in two lots: (1) from land-crab holes and from ground pools among fallen cattail and palm fronds on the perimeter of a swamp in an area flooded by rains; (2) from land-crab holes in the same locality fifteen days later after the flood waters had receded. Larvae of *C. scimitar* were found in association with *Deinocerites cancer* Theobald and *C. nigripalpus*; the adults, in light-trap collections, in association with *Anopheles albimanus* Wiedemann, *Anopheles crucians* Wiedemann, *Aedes tortilis* (Theobald), *Aedes condolezens* Dyar and Knab, *Aedes taeniorhynchus* (Wiedemann), *Culex bahamensis* Dyar and Knab, *C. nigripalpus*, *Culex pipiens quinquefasciatus* Say, *Culex atratus* Theobald and *Culex pilosus* (Dyar and Knab).

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The type specimens were selected from the series of adults reared from larvae collected on Hog Island. The holotype, male, the allotype, female, and a series of paratypes have been deposited in the U. S. National Museum, Washington, D. C. Paratypes will be sent to the British Museum, London. The remainder will be placed in the Research Center collection.

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The male and female of *C. scimitar* are herein described. At the present writing no definitive characters have been found to separate the larvae of *C. scimitar* from those of *C. nigripalpus*.

Culex (Culex) scimitar, new species

(Fig. 1, A and B)

Female.—Medium sized species. **Head**: Proboscis long, dark, with median pale sealing ventrally. Palpi short, dark. Occiput clothed dorsally with dark erect forked scales, and with pale narrow recumbent scales occasionally white along the eye margins; lateral regions with patches of broad flat white scales. Tori dark, bare. **Thorax**: Integument of scutum brown with scattered long dark bristles and many narrow bronzy-gold curved scales which are paler in the prescutellar area (coarser than in *C. nigripalpus*). Scutellum bears some long dark bristles and pale golden curved scales on each lobe. Pleura pale greenish-grey, sternopleuron and mesepimeron with conspicuous patches of flat white spatulate scales, often as many as twenty scales in each patch. Halteres with pale sealing on the knobs. Wing scales dark. **Abdomen**: Dorsally with flat dark-brown scales showing iridescent shadings. All tergites except the first with lateral white spots and other white scaling basally. Tergite I with a small patch of brown scales medially; II usually with a patch of white scales medially, occasionally with a narrow band; III, IV, V and VI usually with white bands, III and VI sometimes with only a median patch of white; VII usually unbanded, the lateral white spots lengthening along the margins of the tergite to form prominent triangles; VIII broadly white basally, apically dark. Venter predominately pale scaled, the sternites usually with some apical brown sealing. **Legs**: Dark except for pale sealing on the posterior surfaces of the femora and prominent patches of white scales at the apices of the tibiae. The tibiae also often show indefinite posterior pale sealing which may involve the first tarsal segment. The first coxae are white-capped on the outer surface.

Male.—Coloration similar to that of the female. Terminalia (fig. 1, A and B). **Dististyle** (Ds) about two thirds as long as basistyle; thick at base, widening along the inner margin to near center where it narrows abruptly scimitar-like in an unsclerotized area bordering the ragged fringe of the sclerotized integument; the distal third slender to the apex, bearing two setae within its margins and a series of small transverse reflexed ridges along its crest. The terminal claw (C) inserted before the apex, prominent, flattened, blunt at tip. **Basistyle** (Bs) about twice as long as wide, broadly rounded at base, narrower above the

subapical lobe; a long slender seta inserted near the base of the dististyle; many long curved setae on the outer aspect, inner aspect with scattered short setae and a vestiture of fine hairs. **Subapical lobe** (SL) prominent, undivided, with five appendages; three rods, a leaf, a seta; the first rod short, slender, tapering uniformly to tip, the second rod a fourth again as long, thick, flattened at apex, the third rod similar, still longer, gently recurved in its apical half toward the broad obovate leaf and the long slender seta. **Phallosome** (fig. 1, B) composed of two heavily sclerotized plates, each plate with a long curved dorsal arm (DA); a thick sharply pointed ventral arm (VA) bearing a series of small transverse ridges along its outer surface; a long broadly spatulate basal process (BP); and three or four stout dark teeth (T) arising along a depressed ridge between the ventral arm and the basal process. The **lobes of the ninth tergite** prominent, each with numerous setae, and separated by a profound emargination about as wide as deep. The **tenth sternite** crowned with numerous stout spines, those on the apex pointed, the outer ones blunt; the basal arm stout, curved, heavily sclerotized. **Claspette** absent.

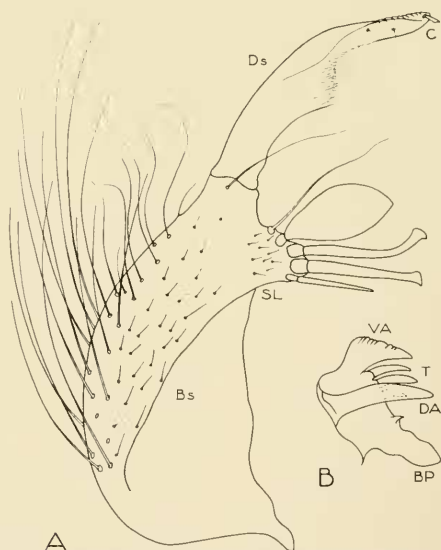


Fig. 1. *Culex (Culex) scimitar*, new species, male terminalia. A: Ds, dististyle; C, claw of dististyle; Bs, basistyle; SL, subapical lobe of basistyle. B: Plate of phallosome. VA, ventral arm; T, teeth; DA, dorsal arm; BP, basal process.

The female of *C. scimitar* may be differentiated from *C. nigripalpus*, which it most resembles, by the increased sealing on the pleura, the pale recumbent scales of the dorsum of the occiput, the lighter coloring and coarser appearance of the bronzy scales of the scutum, and the usually quite evident white basal banding of the abdominal tergites. The male of *C. scimitar* is readily differentiated from other *Culex (Culex)* species by the excessively enlarged and bulbous appearance of the terminal segments of the abdomen and the large characteristic dististyles which are often identifiable with a dissecting microscope (x 75) in unmounted terminalia.